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ABSTRACT

The issue of whether higher education reduces or reproduces structured social inequality was investigated by comparing the background, current educational experiences, and expectations regarding future work of freshmen and senior liberal arts students who attend upper, middle, and working class universities. Responses were received from 173 Yale University students, 179 University of Connecticut (U Conn) students, and 150 University of New Haven (UNH) students. The survey assessed family, educational, employment, and social class background. Students also evaluated the quality of their experiences at college and completed a 10-item Quality of Educational Life (QEL) Scale, along with questions designed to evaluate related aspects of university life, including living location and extracurricular activities. In addition a nine-item Quality of Future Work (QFW) Scale was completed, in which respondents described their future work situations in as much detail as possible. The data strongly confirm the view that the universities chosen serve student bodies from elite and nonelite family backgrounds, and that they also differ in the degree of self-direction and independence present in the occupational experiences of their fathers. While seniors reported greater leadership-oriented experience, the initial differences between the settings remained fairly constant over time, as inferred from cross-sectional data. Findings support the hypothesis that schooling tends to reproduce rather than to reduce (or increase) differences between student bodies and their orientations toward leadership and control in their future work. Questionnaire items and mean response scores are appended. (SW)

Does Higher Education Reduce or Reproduce Social Class Differences? Schooling at Yale University, University of Connecticut and University of New Haven and Student Attitudes and Expectations Regarding Future Work[1]

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Throughout American history, a college education has been the privilege of a relative few. This small group of highly educated Americans has monopolized positions of wealth, power and prestige. The tremendous growth in mass higher education in recent years, however, would seem to indicate that barriers between classes are no longer as impermeable as they once were. With millions of working class and even poor students attending college, some scholars (e.g., Ravitch, 1978) have been led to conclude that education is contributing to a thorough-going democratization of American life. According to these writers, education at all levels has been "a great equalizer."

Other writers have been far less sanguine about the relationship between schooling and equality. Bowles and Gintis (1976), Greer (1976), Katz (1975), Spring (1972), and a number of other "revisionist" scholars have argued that education is structured in a way which reinforces and reproduces class inequality. Bowles and Gintis (1976) argue that the major function of education is to integrate youth into the economic system. This integration is accomplished through a structural correspondence between social relations in the classroom and social relations of production. They suggest that "the relationship between administrators and teachers, teachers and students, students and students, and students and their work, replicate the hierarchical division of labor." Lack of

[1] This paper was read at the Eastern Psychological Association, New York, April 1981.

democracy in the classroom they argue, enures students to the passive roles they will someday play in the workplace.

One problem with the "correspondence principle", as presented by Bowles and Gintis, is that it cannot explain the fact that authoritarian educational systems produce leaders as well as followers. For instance, the education of the British ruling class can hardly be called democratic. Nonetheless, that class has produced more than its share of leaders as well as followers. If schooling prepares some students for leadership and others for followership, the mechanism by which this is accomplished entails far more than exposing students to either hierarchical or democratic environments.

Jeanne Binstock (1970) distinguishes two styles of socialization which she feels encourage either leadership or followership. Motivational socialization, the style she found to be most common in "elite", upper class universities, stresses the internal or subjective component in the learning process. What is going on in the mind of the student takes priority over external compliance to a set of rules. Motivational socialization emphasizes autonomous action and the implementation of self-originating goals. Thus, while great pains are taken to mold the total environment within which learning takes place, students are given substantial freedom to taylor their educations to meet their individual needs. Egocentricity in life style is tolerated, if not encouraged.

On the other hand, what Binstock calls behavioral socialization stresses external compliance and conformity to clearly defined rules and expectations. Where motivational control emphasizes unspecified, variable, flexible task orientations, and seeks to promote values which stress critical thinking and innovation, behavioral socialization emphasizes certainty, momorization, and conformity. Behavioral

control can be imposed without understanding or even caring about a student's motives. All that matters is that external behavior meets certain minimum standards. Binstock (1970) argues that this style of socialization is most common "in situations where the subjects are being trained for low status, routine and highly structured positions." It is in working class schools that she found this to be most prevalent.

Binstock's work adds an important dimension to Bowles and Gintis' discussion of the correspondence principle. It is clear that students are exposed to learning environments which allow them to exercise varying amounts of decision-making power. At one end of the continuum are authoritarian settings where students have little or no control. At the other end are democratic settings where authority is shared equally by students, faculty and others. In addition to this authoritarian-democratic dimension is the one presented by Binstock which emphasizes leadership and motivational control at one end and followership and behavioral control at the other.

Figure 1 contains a four cell typology of learning environments

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Enter Figure 1 about here.

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which results from a combination of these two dimensions. Cell A represents an environment which is hierarchical and authoritarian, but nonetheless relies heavily on motivational forms of control. In these settings, students are taught to accept hierarchy as natural and inevitable. Although critical thinking and autonomous action are encouraged, formal decision-making power rests with faculty and administrators. Cell A would include elite universities like Harvard, Berkeley and Yale. The liberal arts emphasis of these schools is consistent with motivational socialization for leader-

ship. Paternalistic faculty-student relations, and competitive, meritocratic ideology reinforce hierarchy.

Schools in Cell B are also committed to a hierarchical model of education. Unlike elite universities, however, schools in Cell Be emphasize narrow vocational training over critical thinking and intellectual growth. A great many community colleges and poorly endowed private universities fit this type. The combination of behavioral socialization and authoritarian teaching creates an environment not unlike that of a factory. Extrinsic rewards (grades) are given for fulfilling minimum requirements. Few students are motivated to do more work than is specifically required.

Only Cell C offers opportunities for what some radical scholars (e.g., Freire, 1970, 1973; Shor , 1980) refer to as "liberatory education." Education for leadership and democracy is built around what Freire calls the"dialogic process." In this setting, often called an "open classroom", teachers and students cooperate in sharing both teacher and student roles, and all participants meankngfully contribute in shaping the educational process. This type of education has truly revolutionary potential in that it encourages critical thinking and practice which challenge hierarchy and social inequality and which seeks social change. Cell D combines democratic schooling and behavioral socialization. To the extent that these two contradictory themes may coexist, the resulting type might well be called "pseudo-democratic."

The major purpose of this study will be to bring empirical evidence to bear on the issue of whether higher education reduces or reproduces structured social inequality. To do this, an attempt will first be made to compare the backgrounds and current

educational experiences of students who attend upper, middle and working class universities. Then an attempt will be made to assess the degree to which these educational experiences are consistent with the students' attitudes and expectations toward their future work. If there is congruence, one can conclude that participation in higher education does not substantially alter existing patterns of social inequality.

Method

Random samples of 150 Freshmen and 150 Seniors were selected from all liberal arts students at each of the three universities. Survey materials were mailed directly to their school addresses. An overall return rate of 42% was obtained, yielding data for 173 students at Yale, 179 students at University of Connecticut (U Conn), and 150 students at the University of New Haven (UNH).

The survey consisted of three sections. The first was designed to assess family educational, employment and social class background. The second section required students to evaluate the quality of their experiences at college. Students completed a 10 item Quality of Educational Life (QEL) Scale. Items were designed to measure the degree of motivational socialization for leadership versus behavioral socialization for followership which students experienced, and each was rated on a 5-point scale. In addition, students answered several questions designed to evaluate related aspects of university life, including living location, extra-curricular activity, and paid work during the school year. The third section of the survey evaluated students' attitudes and expectations about the quality of their future work. Each student completed a 9-item Quality of Future Work (QFW) Scale. The items were designed to assess the importance of motivational socialization for leadership versus behavioral socialization

for followership, in this case with regard to future work, and were rated on a 5-point scale. Respondents were also asked to describe their future work situations in as much detail as possible, to predict how much control they anticipated having, and to estimate the annual income they expected to be earning. Items for the survey were derived from an earlier pilot study (Minore, 1979), and from discussions with students and colleagues.

Results

A. Family Background

The three universities studied were chosen to exemplify elite, middle class, and working class schools. Indicators of family background and social class are presented, by school, in Table 1. The Yale, U Conn, and UNH samples differ significantly

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Enter Table 1 about here.

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in level of father's and mother's education, in father's and mother's social class index (Hollingshead and Redlich, 1958), and in father's and mother's annual income. For each index, the Yale sample reports strikingly higher educational levels and income, and receives higher class rankings than U Conn or UNH. The educational and social class advantage of U Conn student families over those of the UNH sample is smaller, but also statistically significant. These results strongly confirm our judgment that the universities chosen for the study do in fact serve student bodies from different educational and class backgrounds. While some support is provided for a tripartite class distinction involving upper, middle and working class backgrounds, the large differences between Yale and the other two schools suggest that the elite versus non-elite distinction proposed

by Binstock (1970) and the classic ruling class versus working class dichotomy of Marx (1936) are more appropriate.

The major purpose of this study is to explore higher education as a mediator of class socialization. Our question is "does the experience of going to college tend to reduce or to reproduce the social class differences in student attitudes, orientatopms. amd expectations toward work which have already been shaped by prior history?" Melvin Kohn (1969) has demonstrated the strong links between the degree of self-direction and independence present in a family's work experience in general, and more specifically , in the work experiences of the father. and the degree of independence and self-direction in their children. In the present study, student descriptions of their parents work reveals that Yale fathers are, with few exceptions, engaged in occupations which afford them a very high degree of independence and self-direction. Physicians, lawyers, scientists, academics, artists, high level executives and successful businessmen predominate. Father's of UNH students have, with very few exceptions, working class occupations which afford low degrees of independence and self direction. Painters, machinists, salesmen, mechanics, bus drivers, and low level managers predominate. The fathers of U Conn students are much more similar to those of UNH than of Yale in their occupations, but include a somewhat larger number of white collar workers, schoolteachers, and professionals than the fathers in the UNH sample. Student descriptions strongly suggest that U Conn fathers experience a low to moderate degree of independence and self direction in their occupations.

Because only a small proportion of students in any of the three samples reported that their mothers were engaged in full time employment, we have not emphasized mother's work. We did find a

higher rate of full time employment among the mothers of U Conn students, mainly in nursing and elementary school teaching, suggesting the protypic dual income middle class family. An interesting finding for the Yale mothers was the large discrepency between their high level of education and low level of employment. While 35% of Yale mothers have graduate or professional degrees and 71% have college degrees or higher (as compared with 58% and 85%, respectively for Yale fathers) , their time is largely devoted to family life and to volunteer work involving high levels of responsibility but little monetary compensation. This pattern is reminiscent of the philanthropic volunteer roles which upper class women have traditionally played.

In summary, the data strongly confirm our judgment that the universities chosen do in fact serve student bodies from elite and non-elite family backgrounds, and that they also differ in the degree of self-direction and independence present in the occupational experiences of their fathers.

B. Quality of Educational Life

Mean scores for the Quality of Educational Life (QEL) Scale total and for each of the 10 individual items were computed. Items which were worded to reflect followership via behavioral control were transformed, so that low scores on all scale items reflected a high degree of leadership via motivational control.

Three way ANOVAs (School x Year x Sex) were obtained for the total scale score and for each of the 10 QEL Scale items. The mean scores and statistical tests results for School x Year comparisons are presented in Table 2 and for School x Sex in Table 3.

Enter Table 2 and Table 3 about here.

For the total QEL Scale score, significant main effects were found for School, Year and Sex, and a significant School x Year interraction occurred. Significant main effects for School were found for all 10 of the individual scale items, for Year on 6 of the items, and for Sex on 5 of the items. No interactions were statistically significant.

Turning first to the School effects, Scheffe comparisons getween the School means show that in every case, the Yale sample reported significantly greater exposure to educational experiences which emphasized leadership and motivational control than either the UNH or U Conn sample, or both. The U Conn sample reported greater expusure to motivational education for leadership than did the UNH students on 6 of the 10 items while UNH students were higher than U Conn students on only 1 item. Thus, Yale students, regardless of Year or Sex, appear to experience significantly greater exposure to educational life which emphasizes leadership through motivational control than either of the other samples, and U Conn students experience the same to a greater degree than do students at UNH.

The finding of a significant main effect for Year reflects the fact that Seniors report a greater degree of motivational socialization for leadership on 4 items and that Freshmen report higher ratings on 2 items. The School x Year interaction obtained for the total scale score is due to the fact that UNH Seniors reported significantly <u>less</u> exposure to leadership experiences than did UNH Freshmen. A look at the means for the individual scale items suggests that this reflects a decreased opportunity to tailor make their academic programs and a decreased tendency for professors to provide thorough oral and written evaluations for Seniors compared with Freshmen at UNH. The main effect for Sex appears to

reflect the fact that women report greater exposure to leadership experiences than do men.

In summary, the consistent differences between schools for both Freshmen and Seniors indicates that while Seniors report greater leadership oriented experience, the initial differences between the settings remain fairly constant over time, as inferred from our cross-sectional data.

Other Measures of Quality of Educational Life

Binstock (1970) has argued that educationally elite schools attempt to prepare intrinsically motivated leaders by creating environments which are both intensive and extensive in their socialization. Table 4 presents data, by school, regarding

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Insert Table 4 about here.

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student involvement in campus related activity and in paid employment during the academic year. The three schools differ significantly on all of the dimensions studied. The similarity between levels of participation at U Conn and UNH despite differences in living locations suggests that cummuter status my not be the critical determinant of level of involvement.

Reports of daily homework reveal that UNH students spend less time than those at the other schools. A much higher percentage of UNH students report working at paid jobs. More telling are the differences in the average number of hours per week spent on the job. The typical UNH job holder works half time (20 hours) while students at U Conn and Yale report working an average of 12 hours and 9 hours per week, respectively. All things being equal, more

more hours spent on the job per week would allow less time for student involvement in campus activities.

However all things are not equal. Analysis of student descriptions of their job activities reveals important differences between schools in the type and quality of work activity. While the typical Yale student who works is employed by Yale and works on campus doing research, social service or service work (e.g., waiting on tables in the dining halls), students at UNH and U Conn typically work off campus at businesses such as McDonalds, Shopright or Sears. Thus, paid work appears to be much more of an extension of campus socialization for students at Yale than for those at the other two schools.

C. Quality of Future Work

Mean scores for the Quality of Future Work (QFW) Scale totals and for each of the 9 individual items were computed. Items were scored to reflect leadership via motivational control. Items which were worded to reflect followership via behavioral control were transformed so that high scores for all scale items are associated with high ratings of work characteristics believed to reflect leadership via motivational control.

Three way ANOVAs (School x Year x Sex) were computed for the total scale scores and for each of the 9 QFW items. The mean scores for the scale total and for the individual items are presented by School and Year in Table 5, as are statistical test results. Because

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Insert Table 5 about here

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no statistically significant comparisons were found for Sex, breakdowns

by Sex are not presented. Significant main effects were found for QEL Scale totals by School and Year, but there were not significant interactions. Significant main effects for School occurred for 8 of the 9 individual scale items and for Year on 4 of the items. Again no significant iteractions were found.

Sheffe comparisons between School means reveal that in all cases the Yale sample expected a significantly greater degree of opportunity for leadership via motivational control in their future work than did U Conn and UNH (5 items), U Conn (2 items), and UNH (2 items). The Yale sample scored significantly higher than the others on the total scale score as well. No differences between U Conn and UNH on QFW scores reached statistical significance.

The significant main effect for Year reflected greater leadership expectations for Seniors than for Freshmen. The failure to find significant School x Year interactions suggests that the differences between Yale and the other two schools exhibited by first year students were largely unchanged for students in their fourth year of exposure to college socialization. Although expectations that future work will entail leadership via motivational control tend to increase for all schools from Freshman to Senior year, the differences between elite (Yale) versus non-elite (U Conn and UNH) institutions found for Freshmen are paralleled for Seniors.

The findings support the hypothesis that schooling tends to reproduce rather than to reduce (or increase) differences between student bodies in their orientations toward leadership and control in their future work.

Other Aspects of Quality of Future Work

Students were asked whether they planned to obtain a graduate or professional degree. They were also asked whether they had a

good idea of the type of work they would be doing once established in their careers. Those who answered "yes" were asked to describe the work, to rate how much control over the organization or firm they anticipated, and to estimate their future annual income Iin 1980 dollars). Data from thes questions are presented in Table 6.

Enter Table 6 about here.

Because no significant differences between Freshmen and Seniors were found, only comparisons by School are presented. A significantly greater percentage of Yale students planned to earn graduate degrees. While the majority of Yale respondents anticipated LLSs, PhDs, and MDs, MSWs, MBAs, and other less prestigious degrees predominated among respondents from the other two schools.

Hollingshead ratings of future work descriptions revealed that while nearly three quarters of the Yale sample described work situations associated with Class I, less than half of the U Conn group and a third of the UNH group anticipated the same. Yale students also anticipated significantly greater control over their future work settings and expected significantly higher mean annual incomes than students at U Conn and UNH.

These findings provide additional evidence of the striking differences in expectations about the quality of future work for students at elite versus non-elite universities. As with the data presented earlier, although we are not able to assess the degree to which experiences at the university contribute to these differences, it is fair to conclude that such experiences do not significantly reduce these differences.

Discussion

Because the present study did not control for the social class of the entering students and because the comparisons between Freshmen and Seniors are cross sectional rather than longitudinal, the findings should not be interpreted as providing support for a causal relationship between schooling and differences in attitudes and expectations concerning leadership and control. They are, however, suggestive of a correspondence between these two dimensions. Further, had differences in quality of educational life not been found, it would be easier to argue that between school differences in leadership expectations in future work are due exclusively to prior social class differences .

Some of our more conservative colleagues have argued that the correspondence between the differences in university socialization and social class differences in student bodies are both predictable and desirable. In their view, different types of universities should be preparing the students they serve for futures which are continuous with and appropriate to their social class backgrounds. More liberal colleagues tend to be somewhat surprised and less sanguine about the correspondence. They see the university as doing the best that it can to reduce inequality given the very difficult societal constraints to doing so. They emphasize the striking differences in background, preparation, motivation, and in economic resources associated with elite and non-elite student bodies and the universities they attend, and see both differences in educational life and expectations of work as consequences rather than contributing factors.

The authors hold the view that in any society, social institutions will tend to reproduce or pertetuate the social order

and social relations which exist. We also believe that social inequality as reflected in class related differences in power and personal characteristics is not desirable and that social inequality stands in opposition to the themes of democracy and justice which are central to our society. We believe that despite the considerable limitations and constraints faced by the University, it cannot escape its responsibility of helping its students to develop the capacity to actively and critically encounter the conflicting themes of democracy and social equality versus authoritarianism and social inequality. To claim that the University is merely a cog in the machine of social reproduction is to negate its historical mission as a center of intellectual activity and critique and to doom it to passivity and impotence.

Earlier, we have noted that neither elite nor non-elite education necessarily imply a rejection of hierarchical social relations or an acceptance of democratic values. While students at Yale tend to be prepared for leadership positions and students at U Conn and UNH for followership roles, students at all three schools are being socialized to accept social arrangements at school, work, and in society at large which are based upon hierarchy and social inequality rather than upon more democratic and egalitarian arrangements. When asked whether power and authority in the college classroom should be in the hands of the professors, the majority of students at all three schools agreed. When asked to explain their responses, few students at any of the schools questioned hierarchy as the appropriate organizing principle for the classroom, although a variety of advantages and limitations of that arrangement were noted. When asked if work in modern industrial society should continue to be organized non-democratically, the three samples were

again in agreement.

As we proposed in our introduction and outlined in Figure 1, the "open classroom" approach to education provides the possibility for a democratic set of social relations within the classroom and for a socialization process which emphasizes motivational control, leadership, and independence of thought and action. Few of the students in our samples reported ever having even a single course which was organized along open classroom lines. In our own teaching experiences at both elite and non-elite schools, we have found "open classroom" teaching to be difficult to initiate and develop, but extremely productive and rewarding to the extent that it can occur. While both faculty and students are hampered by the limitations of our own histories , institutional constraints which operate at the organizational, administrative and ideological levels via what has been referred to as the "hidden curriculum"(Illich, 1970) . I have addressed these issues in greater detail in an earlier paper (Hoffnung, 1978).

Future research should focus on more fully revealing the contributions of schooling to the reproduction of both social class inequality and hierarchical social relations, as well as the potentials of higher education to help create more liberatory democratic social relations within which critique and critical consciousness can blossom.

Figure 1

A Typology of Learning Environments

	Motivational Socialization for Leadership	Behavioral Socialization for Followership
Authoritarian Teaching	Elite A	Vo tech B
Democratic Teaching	Open Classroom C	Pseudo Democratic D

Table 1. Indicators of Family Background and Social Class by School.[1,2]

A) Father's Education	Yale (N=172)	U Conn. (N=177)	UNH (N=147)
Grad or Prof	59%	21%	11%
College	26	35	16
Part College	5	20	21
High School	10	24	52

B) Mother's Education	(N=172)	(N=179)	(N=149)
Grad or Prof	35%	12%	5%
College	36	19	13
Part College	13	28	17
High School	16	41	65

C) Father's Class Hollingshead	(N=169)	(N=174)	(N=139)
I	63%	26%	14%
II	26	39	21
III	7	24	36
IV & V	4	11	29

D) Mother's Class Hollingshead	(N=169)	(N=174)	(N=139)
I	63%	26%	14%
II	25	39	22
III	7	24	36
IV & V	4	11	29

E) Father's Income (thousands)	Yale	U Conn	UNH
	$33.22	$36.66	$26.20

F) Mother's Income (thousands)	Yale	U Conn	UNH
	$19.17	$10.37	$10.12

[1]Chi Square is significant at <.001 for tables A) - D).

[2]One-way ANOVA main effects for School are significant for Table E ($F= 10.92$, $df=2,374$; $p<.000$) and Table F ($F=9.87$, $df=2,257$; $p<.000$). Means connected by lines differ significantly ($p<.05$) by the Scheffé test.

Table 2: : Mean Scores on Quality of Educational Life (QEL) Scale by School and Year[1,2]

Item		Yale	U Conn	UNH		
Sum of Scale Items A-J	Freshmen	24.14	31.32	29.74	28.40	School x Year F: 4.45, df: 2, 469 p<.005
School F = 124.43 df=2,461, p<.000	Seniors	23.92	29.47	31.23	28.24	
		24.03	30.27	30.48		
A) Accurately memorizing material is more highly rewarded than critical analysis. (F)	Freshmen	2.02	3.19	3.08	2.76	
	Seniors	2.32	2.92	2.91	2.72	
School F=129.42, df=2,464, p<.000		2.26	3.04	3.00		Year F=9.16, df=1,467 p<.003
B) I have a great deal of freedom to tailor my academic program to fit my needs.(L)	Freshmen	1.58	2.44	2.59	2.20	
	Seniors	1.71	2.58	3.17	2.49	
School F=53.87, df=2,467, p<.000		1.65	2.52	2.86		
C) Presentation of class material closely parallels structure of the assigned text. (F)	Freshmen	3.10	3.82	3.81	3.58	Year F=13.89, df=1,467 p<.000
	Senior	2.69	3.36	3.71	3.25	
School F=31.59, df=2,467, p<.000		2.89	3.59	3.76		
D) Professors provide thorough oral and written evaluations of my work and ideas.(L)	Freshmen	2.67	3.50	2.77	2.98	Year F=5.17, df=1,467 p<.05
	Seniors	2.98	3.46	3.27	3.24	
School F=16.07, df=2,467, p<.000		2.83	3.48	3.02		
E) Most of my classes are oriented toward teaching marketable skills, not intellectual growth.	Freshmen	1.56	2.36	2.77	2.23	Year F=5.91, df=1,467 p<.02
	Seniors	1.52	2.06	2.58	2.05	
School F=65.58, df=2,467, p<.000		1.54	2.21	2.68		
F) Much of my education takes place outside the classroom through contacts with faculty, students, etc.	Freshmen	2.00	2.68	2.93	2.54	
	Seniors	1.93	2.45	3.01	2.46	
School F=28.98 df=2,469, p<.000		1.97	2.55	2.97		
G)I have been encouraged to carry out independent research.	Freshmen	2.88	3.09	3.06	3.01	Year F=16.16, df=1,469 p<.000
	Seniors	2.35	2.90	2.59	2.61	
School F= 5.27, df= 2,461, p<.005		2.62	3.00	2.83		

Table 2: (cont.) Mean Scores on Quality of Educational Life Scale by School and Year

Item		Yale	U Conn	UNH	
H) Professors expect students to play active role in deciding how classes are run. (L)	Freshmen	3.53	3.94	3.30	3.59
	Seniors	3.62	3.76	3.76	3.71
		3.57	3.85	3.53	
School $F = 4.68, df = 2,469, p < .01$					Years $F = 5.11, df = 1,469$ $p < .05$
I) My professors generally take careful precautions to prevent cheating. (F)	Freshmen	2.38	3.47	3.26	3.04
	Seniors	2.24	3.02	3.22	2.83
		2.31	3.25	3.24	
School $F = 36.43, df = 2,469, p < .000$					
J) In my classes, decisions on how to carry out assignments are often left to the student. (L)	Freshmen	2.66	2.90	3.29	2.95
	Seniors	2.76	3.02	3.32	3.03
		2.71	2.96	3.30	
School $F = 10.01, df = 2,469, p < .000$					

[1]Low scores indicate that respondents agreed with leadership items (L) and disagreed with followership items (F). In other words, low scores indicate greater exposure to motivational socialization for leadership for all items.

[2]The differences between means for Schools are statistically significant at $<.05$ according to a Scheffe test . The F-values, df's and p values for Schools are derived from a three-way analysis of variance (School x Year x Sex).

The F-values, df's and p values for Year are also derived from a three-way analysis of variance (School x Year x Sex).

Table 3: Mean Scores on Quality of Educational Life (QEL) Scale by School and Sex [1,2]

Item		Yale	U Conn	UNH	
Sum of Scale Items A-J	Males	24.85	31.03	31.16	29.01
	Females	23.08	29.81	29.75	27.55
		23.96	30.42	30.45	
A) Accurately memorizing material is more highly rewarded than critical analysis.(F)	Males	2.27	3.07	3.08	2.81
	Females	2.28	3.03	2.93	2.75
		2.28	3.05	3.00	
B) I have a great deal of freedom to tailor my academic program to fit my needs.(L)	Males	1.65	2.56	2.75	2.32
	Females	1.64	2.50	3.00	2.38
		1.65	2.53	2.88	
C) Presentation of class material closely parallels the structure of the assigned text. (F)	Males	3.18	3.77	3.74	3.56
	Females	2.54	3.43	3.79	3.25
		2.86	3.60	3.77	
D) Professors provide thorough oral and written evaluations of my work and ideas. (L)	Males	2.96	3.43	3.01	3.13
	Females	2.68	3.51	2.99	3.06
		2.82	3.47	3.00	
E) Most of my classes are oriented toward teaching marketable skills, not intellectual growth. (F)	Males	1.58	2.26	2.81	2.22
	Females	1.50	2.15	2.54	2.06
		1.54	2.20	2.68	

Sex $F = 11.55$ $df = 1,467$ $p < .001$

Sex $F = 9.48$ $df = 1,467$ $p < .002$

Table 3: Mean Scores on Quality of Educational Life (QEL) Scale by School and Sex

Item		Yale	U Conn	UNH	
F) Much of my education takes place outside the classroom through contacts with faculty, students, etc. (L)	Males	1.91	2.60	2.89	2.47
	Females	2.04	2.52	3.04	2.53
		1.98	2.56	2.96	
G) I have been encouraged to carry out independent research. (L)	Males	2.85	3.09	2.92	2.92
	Females	2.30	2.91	2.76	2.66
		2.58	3.00	2.84	
H) Professors expect students to play an active role in deciding how classes are run. (L)	Males	3.56	3.99	3.76	3.77
	Females	3.60	3.74	3.25	3.53
		3.58	3.87	3.50	
I) My professors generally take careful precautions to prevent cheating. (F)	Males	2.32	3.23	3.24	2.93
	Females	2.32	3.22	3.23	2.92
		2.32	3.23	3.24	
J) In my classes, decisions on how to carry out assignments are often left to the student. (L)	Males	2.83	3.10	3.40	3.11
	Females	2.56	2.88	3.19	2.88
		2.70	2.99	3.30	

Sex $F = 7.18$ $df = 1,469$ $p < .01$

Sex $F = 4.109$ $df = 1,469$ $p < .02$

Sex $F = 5.41$ $df = 1,469$ $p < .02$

[1] Low scores indicate that respondents agreed with leadership items (L) and disagreed with followership items (F). Thus, low scores indicate greater exposure to motivational socialization for leadership for each item.

[2] The differences between means connected by lines are statistically significant at the values indicated. These values represent main effects for Sex derived from a three-way analysis of variance (School x Year x Sex). School x Year findings are presented in the preceeding table.

Table 4 : Other Measures of Quality of Educational Life [1,2]

A) Hours of Daily Homework	Yale	U Conn	UNH
	4.46	4.01	2.70

B) Free Time In Campus Activity	Yale (N=155)	U Conn (N=155)	UNH (N=81)
0-20%	34%	61%	59%
21-40%	25	18	19
41+%	41	21	22

C) Living Location	Yale (N=178)	U Conn (N=179)	UNH (N=146)
Campus	91%	79%	11%
Walking Dist.	8	6	13
Commuter	1	15	73

D) Job During School Year	Yale (N=172)	U Conn (N=179)	UNH (N=140)
Yes	50%	48%	71%
No	50	52	29

E) Hours On Job Weekly	Yale	U Conn	UNH
	8.95	12.38	21.24

[1] One-way ANOVA main effects for School are significant for Tables A ($F=37.21$, $df= 2,484$, $p<.000$) and Table E ($F= 65.54$, $df=2,257$, $p<.000$). Means connected by lines differ significantly (Scheffe, $p<.05$)

[2] Chi Square comparisons are significant for Table B ($p<.05$), Table C ($p<.05$), and Table D ($p<.05$).

Table 5: Mean Scores on Quality of Future Work (QFW) Scale by School and Year [1,2]

Item		Yale	U Conn	UNH	
Sum of Scale Items A-I	Freshmen	32.47	29.76	29.26	30.50
School $F = 32.46, df = 2,477, p < .000$	Seniors	34.49	30.86	31.00	32.12
		33.48	30.31	30.13	
					Year $F = 15.48, df = 2,477$ $p < .000$
A) Responsibility for decisions which have a significant effect on the lives of other people.(L)	Freshmen	3.32	3.37	3.49	3.39
	Seniors	3.49	3.36	3.54	3.46
		3.41	3.37	3.51	
B) High Income. (F)	Freshmen	2.75	2.65	2.40	2.60
	Seniors	2.98	2.77	2.51	2.75
School $F = 7.25, df = 2,477, p < .001$		2.87	2.71	2.45	
C) Opportunities for personal growth and enrichment. (L)	Freshmen	4.81	4.59	4.40	4.60
	Seniors	4.76	4.64	4.64	4.68
School $F = 6.68, df = 2,477, p < .001$		4.79	4.62	4.52	
D) Few demands on your time beyond those specifically defined in the job description.(F)	Freshmen	3.57	3.11	2.97	3.22
	Seniors	3.84	3.10	3.11	3.35
School $F = 16.41, df = 2,477, p < .000$		3.71	3.11	3.04	
					Year $F = 5.89, df = 1,472$ $p < .05$
E) Problem solving in areas where there are few, if any clear cut answers. (L)	Freshmen	3.65	3.05	3.35	3.35
	Seniors	3.81	3.39	3.49	3.56
School $F = 8.92, df = 2,472, p < .000$		3.73	3.22	3.42	

Table 5: (cont.) Mean Scores on Quality of Future Work (QFW) Scale by School and Year

Item		Yale	U Conn	UNH	
F) Clear expectations as to how much work is required for a certain level of compensation. (F)	Freshmen	3.45	2.87	2.63	2.98
	Seniors	3.83	3.06	3.01	3.30
		3.64	2.97	2.82	
School $F = 24.57$, $df = 2,472$, $p < .000$					Year $F = 10.41$, $df = 1,472$, $p < .001$
G) Work activities which change continually to deal with new problems and demands. (L)	Freshmen	3.90	3.63	3.73	3.75
	Seniors	4.16	3.91	3.99	4.02
		4.03	3.77	3.86	
School $F = 2.35$, $df = 2,472$, $p < .05$					Year $F = 8.46$, $df = 1,472$, $p < .001$
H) Responsibility for generating new ideas and innovations.(L)	Freshmen	4.26	3.72	4.03	4.00
	Seniors	4.39	4.01	4.19	4.20
		4.33	3.87	4.11	
School $F = 10.86$, $df = 2,472$, $p < .000$					Year $F = 6.43$, $df = 1,472$, $p < .01$
I) Competent supervision in carrying out my work.(F)	Freshmen	3.08	2.76	2.56	2.80
	Seniors	3.33	2.79	2.59	2.90
		3.21	2.77	2.57	
School $F = 12.36$, $df = 2,472$, $p < .000$					

[1]High scores indicate that respondents rated leadership items (L) as important and followership items (F) as unimportant. In other words, high scores indicate leadership orientation on all items.

[2]The differences between means connected by lines are statistically significant ($p < .05$) according to a Scheffe test unless otherwise noted.

Table 6 Expectations of Future Education and Work[1,2]

A) Plan on a Grad. or Prof. Degree	Yale (N=172)	U Conn (N=178)	UNH (N=149)
Yes	73%	60%	52%
No	7	16	15
Undecided	20	24	32

B) Hollingshead Rating of Future Work.	Yale (N=94)	U Conn (N=96)	UNH (N=79)
I	74%	44%	33%
II-V	26	56	67

C) Yearly Income From Future Work. (thousands)	Yale	U Conn	UNH
	$55.94	$28.35	$37.00

D) Control Over Future Work.	Yale (N=84)	U Conn (N=100)	UNH (N=85)
A Great Deal	54%	27%	39%
Moderate	35	54	45
Limited/Very Little	12	19	16

[1]Chi Square comparisons for Tables A,B & D are significant ($p<.05$)

[2]One way ANOVA effects for School are significant for Table C ($F= 7.49$, $df=2,230$, $p<.001$). Means connected by lines differ significantly ($p<.05$) by a Scheffe test.

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